

ABSTRACT OF THE DISCLOSURE

A system and method that manages scene graphs by data staging is contemplated.

5 Data staging entails selectively loading only the portions of the scene graph that are currently needed or likely to be needed in the near future. Other objects in the scene graph that are not currently needed or likely to be needed may be replaced by pointers. The pointers may point to the location from which the objects may be accessed if necessary for a future frame. The replaced portions of the scene graph may be

10 compressed and/or cached to a local memory device (e.g., a local array of read-write optical drives) capable of storing large amounts of data, with the pointers indicating where the objects are stored.